

## Short Communication

# New combinations and synonyms in southern African Acanthaceae

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Nomenclatural anomalies in *Dicliptera* Juss. and *Adhatoda* Miller are explained and new combinations in *Peristrophe* Nees and *Adhatoda* proposed. *Duvernoia trichocalyx* Lindau is placed in synonymy with *Ruellia ovata* Thunb.

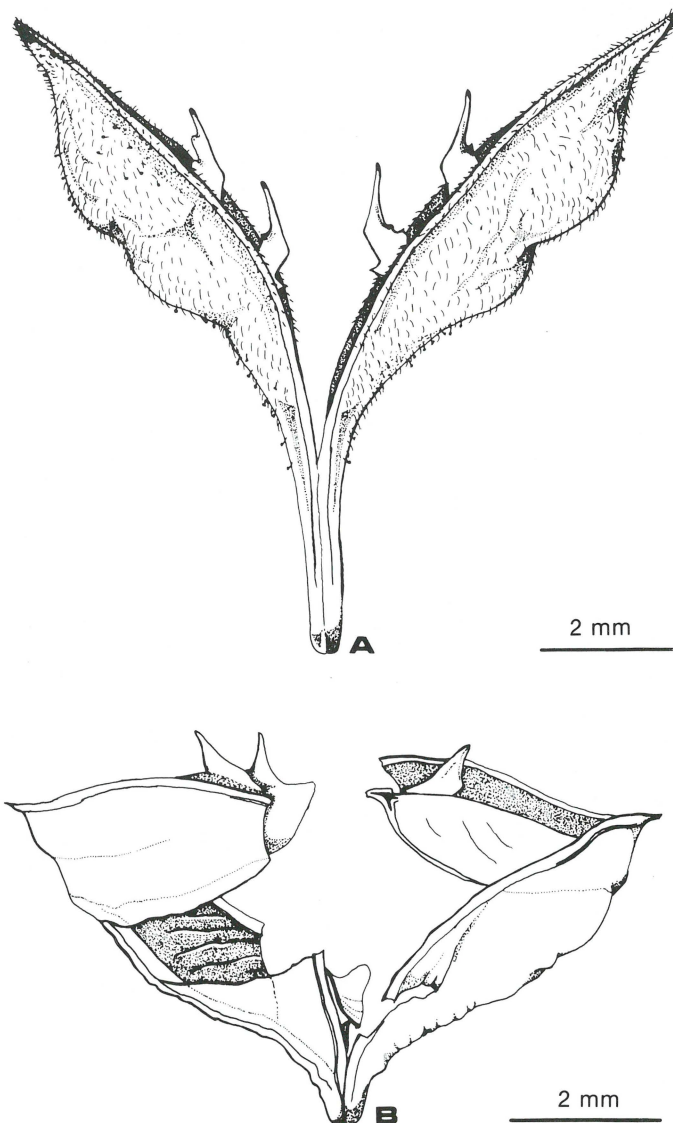
Onreëlmategthede in die nomenklatuur van *Dicliptera* Juss. en *Adhatoda* Miller word verklaar en nuwe kombinasies in *Peristrophe* Nees en *Adhatoda* word voorgestel. *Duvernoia trichocalyx* Lindau word as 'n sinoniem van *Ruellia ovata* Thunb. beskou.

**Keywords:** Acanthaceae, *Adhatoda*, *Dicliptera*, *Peristrophe*, taxonomy

The generic distinction between *Dicliptera* Juss. and *Peristrophe* Nees lies in the difference in the nature of the dehiscence of the capsule, which, as it probably has profound biological consequences, we consider to be a valid distinction. In both genera, the capsule has loculicidal dehiscence and the dissepiment (Bremekamp 1926) or placenta splits down the centre as the capsule opens.

In *Dicliptera* the capsules are bounded by a heavy raphe or suture between the carpels which is particularly well developed in the lower, narrow portion of the capsule. On drying, the capsules open loculicidally into two valves, but tensions between the basal portion of the raphe and the placenta cause the placenta to be torn from the raphe and spring upwards, presumably adding to the projectile force of dehiscence. Often the lateral walls of the capsule valves also split away from the raphe from the base for nearly half their length. These very distinctive capsules are described as having 'placentae arising elastically from the base' (cf. Dyer 1975). They are readily distinguished from those of genera such as *Peristrophe* in which the placentae are described as 'inelastic' and in which the placenta does not detach from the raphe but arches back with the capsule valve (Figure 1A & B).

A frequently used although sometimes misleading distinction between *Dicliptera* and *Peristrophe* is the breadth of bracts. Three species with bracts broader than those normally associated with *Peristrophe* were placed in *Dicliptera* but proved to have capsules with inelastic placentae. New combinations in *Peristrophe* are therefore necessary.



**Figure 1** (A) Dehisced capsule of the *Peristrophe* type, with inelastic placentae; (B) dehisced capsule of the *Dicliptera* type with placentae rising elastically.

### 1. *Peristrophe hereroensis* (Schinz) Balkwill, comb. nov.

*Dicliptera hereroensis* Schinz in Vjschr. naturf. Ges. Zürich 61: 438 (1916). Type: Namibia — 2217 (Windhoek): Otjihua (— BB), Dinter 459 (Z, lecto. !; K!, GRA!, SAM! iso.).

Three specimens were cited with the original description and a set, bearing Schinz determinavit labels, is housed in Zurich. We have seen this set and duplicates of the Dinter gathering 459 from Otjihua and have selected *Dinter 459* (Z) as the lectotype. There appears to be another Dinter gathering with this number, but the locality is not that given in the citation of specimens of *Dicliptera hereroensis*. Unfortunately these gatherings coincide with the period during which Dinter renumbered his collections (Gunn & Codd 1981).

Meyer (1968) recognized this to be a member of *Peristrophe*, but regarded it as a synonym of *P. grandibracteata* Lindau. *P. hereroensis* differs from *P. grandibracteata* by its less dense indumentum and, consequently, greener stems, and its more northerly distribution. In our opinion, it is sufficiently different to warrant recognition as a species.

### 2. *Peristrophe transvaalensis* (Clarke) Balkwill, comb. nov.

*Dicliptera transvaalensis* Clarke in Thiselton-Dyer, Flora Cap. 5,1: 92 (1901). Type: Transvaal, without precise locality, *Holub* s.n. (K, holo.!).

**3. *Peristrophe angolensis* (S. Moore) Balkwill, comb. nov.**

*Dicliptera angolensis* S. Moore in J. Bot., Lond. 18: 362. Type: In distr. Golungo Alto sine locorum indicatione, *Welwitsch 5168* (BM, lectotype, here designated, !).

Three Welwitsch gatherings (*Welwitsch 5132, 5166 & 5168*) were cited with the original description. We have seen *Welwitsch 5132* and *5168* and selected *Welwitsch 5168* as the lectotype as it bears dehiscent capsules, the only reliable generic character. The Kew sheet was chosen as it bears the comment 'S. Moore!'.

***Adhatoda densiflora* (Hochst.) Manning, comb. nov.**

*Gendarussa densiflora* Hochst. in Flora 28: 71 (1845). Type: South Africa, Natal: In collibus prope Pieter Maritzburg terrae Natalensis, September 1839, *Krauss 453* (K, lectotype, here designated).

*Adhatoda natalensis* Nees, in DC, Prodr. 11: 391 (1847); Clarke in Thiselton-Dyer, Flora Cap. 5,1: 76 (1901). Type as for *G. densiflora*.

*Justicia natalensis* T. Anders., Proc. Linn. Soc. Lond. (Bot.) 7: 38 (1864); Lindau in Engler and Prantl, Nat. Pflanzenfam. 4.3B: 349 (1895). Type as for *G. densiflora*.

The genus *Adhatoda* is represented in South Africa by two very similar species known as *A. natalensis* Nees and *A. andromeda* C.B. Clarke. *A. natalensis* Nees (1847) was based on a Krauss gathering (no. 453) which is also the type of *Gendarussa densiflora* Hochst. (1845). The later name, *A. natalensis*, is therefore nomenclaturally superfluous and should be rejected (Art. 63.1 Of I.C.B.N., 1983) in favour of the

earlier legitimate name, *G. densiflora*. The transfer of this species to *Adhatoda* yields the new combination, *A. densiflora*.

*Duvernoia trichocalyx* Lindau was cited as a synonym of *A. natalensis* (*A. densiflora*) by Clarke (1901) solely on the basis of the description. We examined an isotype of the O. Kuntze gathering from the Bluff, Durban, housed in New York, and it proved to be *Ruellia ovata* Thunb. Accordingly, we have removed *D. trichocalyx* Lindau from synonymy with *A. densiflora*.

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